# **New Hampshire Aquatic Restoration** Mapper

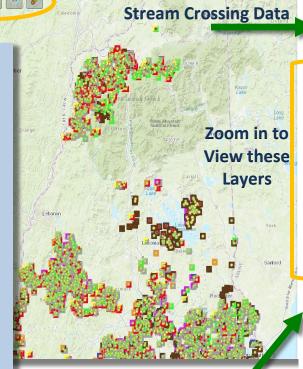
An interactive viewer to explore stream crossing and aquatic habitat data to identify restoration opportunities in your community

www.des.nh.gov/organization/ divisions/water/wetlands/wmp

Mapper NH Aquatic Restoration Mapper

The **Aquatic Restoration Mapper** is a useful tool to target restoration efforts and identify mitigation opportunities to improve stream connectivity, restore important fish habitats, and increase flood resiliency.

- View data by town, watershed, or specify your own area of interest.
- Query and explore stream crossing data, including photographs from surveys.
- View stream habitat, fishery, and riparian data to understand the ecological importance and habitat connections of a restoration area.
- Export selected data as a text file to view and analyze in other software.
- > Print maps of your project area to include in grant applications and presentations!



**Click Boxes to Turn** Layers On/Off

#### Get Familiar with the Layout of the Mapper

- Zoom in and out, pan around the map, and enter a search address to explore an area.
- Click on the **info** button to get definitions for the stream crossing scores, stream and riparian habitat, and flood hazards data.
- Click on the **legend** icon to expand the symbology of each layer.
- Expand the layers tab to view what information are available, try turning layers on/off, and opening the data table.



Click on any point, line, or polygon feature in the map to view a popup window that displays attribute information for every record!



No AOP all organisms Unable to Score Geomorphic Compatibility Fully Compatible Mostly Compatible Partially Compatible Mostly Incompatible Fully Incompatible Wetland Crossing Lake/Pond Crossing Unable to Score Flood Hazard Record American Brook Lamprey **Bridle Shiner Habitat** Springfed Wild Brook Trout

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Structure Condition Aquatic Organism Passage Geomorphic Compatibility

Flood Hazard Record

American Brook Lamprey

Springfed Wild Brook Trout

→ Wild Eastern Brook Trout

NH Fish and Game Fishery Restoration Interest

DES Coldwater Fishery Temperature Model Herring Stock Location or Migratory Path

NHD HUC10 Watershed Boundaries

Wetlands Inventory

Legend

Conservation Land Parcels

Wildlife Action Plan Habitat Teirs

Aquatic Organism Passage

No AOP except adult salmonids

▶ Species of Concern

▶ ✓ Bridle Shiner Habitat

Survey Photos

The New Hampshire Stream Crossing Initiative is a multi-agency program aimed at improving infrastructure, flood resiliency, and stream connectivity across the state.

Environmental







Wild Eastern Brook Trout

## New Hampshire Aquatic Restoration Mapper

A decision support tool to prioritize culvert replacement and stream restoration projects

#### **Data Layers of the Mapper**

Find out about barriers to stream connectivity, important fish habitats, and flood hazards in an area by exploring the layers together.

- Stream Crossing Data and Photos
- Important Fish Habitats
- Presence of NH Species of Concern
- Predicted Coldwater Fish Streams
- Highest Ranked Wildlife Habitat
- Land Parcels
- National Wetlands Inventory
- Conservation Parcels
- HUC 10 Watershed Boundaries
- Flood Hazards Data

#### How to Explore Stream Crossing and Habitat Data

- ➤ Narrow in on Your Area of Interest You can select stream crossing data by Town using the filter tool or select records in a defined area manually (hold down shift to select multiple areas).
  - To select records within a watershed, turn on the HUC 10 boundaries layer and use the manual tool to select the data within the polygon.

➤ Get a Summary of the Stream Crossing Data — Click on the Data Summary icon to get a list of stream crossings in your search area categorized by scores and flood vulnerability.

➤ View Statistics — Click on the Summary Stats icons to get percentages on stream crossing scores for the area of interest

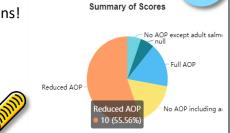
Aquatic Organism Passage Stats

• Right-click on the graph to save a graphic file of the chart to use in reports and presentations!

Filter Data — Put a filter on the stream crossing data to view records that have certain scores.







Measure Distances — Use the ruler tool to get estimates of stream length and distance between features.

> By measuring along the flowline you can get an idea of how much upstream habitat can be gained if a given culvert was removed/replaced.



Structure Condition

46

### **Export Data, Create Maps and Share Your Results!**

- View the Data Table by clicking on the grey arrow at the bottom of the map and export selected records as a text file.
  - Latitude and longitude coordinates of each record are included
- Mark up the map by using text and drawing tools to communicate key results.
- **Export your map** to a PDF file to include in reports, grant applications, and presentations!



